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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/044,381	01/11/2002	Sheree H. Wen	2929/66587	8929

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EXAMINER
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HOPKINS, ROBERT A

ART UNIT	PAPER NUMBER
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1724

DATE MAILED: 10/23/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/044,381	Applicant(s) WEN, SHEREE H.	
	Examiner Robert A Hopkins	Art Unit 1724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                               | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7-21-03</u> . | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 11,12,21 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Aston(5288298).

Aston teaches a filtration unit comprising a first passive stage (12;column 3 lines 30-33) for filtering out particles above a predetermined size, an active stage(11; column 3 lines 16-20) containing at least one agent to kill ambient bacteria and viruses , and a second passive stage(13; column 3 lines 33-37) for removing odors and hazardous chemical agents, wherein the first passive stage is sandwiched between the active stage and the second passive stage to form an integral filter(see figure 1), an intake port(not shown in duct 21) permitting contaminated air to enter the filtration unit, and an exhalation port(not shown) through which decontaminated air may be expelled. Aston further teaches wherein the second passive stage includes an activated charcoal agent. Aston further teaches wherein the active ingredient is in the form of a fabric containing the active ingredient.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aston(5288298) taken together with Deibert(6063170).

Aston discloses all of the limitations of claim 13 but is silent as to wherein the active stage additionally comprises a UV light source effective to destroy bacteria and viruses. Deibert discloses a filtration unit including an active stage containing an agent to kill ambient bacteria and viruses , and wherein the active stage additionally comprises a UV light source(15) effective to destroy bacteria and viruses. It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide a UV light source in addition to the active stage in Aston to provide for additional mechanisms for destroying bacteria and viruses in an airflow.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aston(5288298).

Aston discloses all of the limitations of claim 14 but is silent as to wherein the agent in the active stage is an agent listed in claim 14. Examiner respectfully submits that active agents for destroying ambient bacteria and viruses are well known, therefore it would have been obvious to someone of ordinary skill in the art at the time of the

invention to substitute a well known active agent such as the active agents listed in claim 14 for the active agent with trademark name Intersept in Aston to provide for an equivalent active agent for the destruction of bacteria and viruses in Aston.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Aston taken together with Tribelski(6468433).

Aston discloses all of the limitations of claim 18 but is silent as to wherein the active stage additionally comprises an IR light source or magnetic field generator. Tribelski discloses destroying bacteria and viruses in a gas flow using an IR light source. It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide an IR light source in order to destroy biological organisms having a required frequency specific light sensitivity(column 12 lines 43-46 of Tribelski).

Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aston(5288298) taken together with Deibert(6063170) in view of Seifert , deceased et al(4468372).

Aston taken together with Deibert disclose all of the limitations of claim 19 but is silent as to wherein the active stage additionally comprises an electric or magnetic field generator to separate airborne particles from contaminated air. Seifert, deceased et al discloses an apparatus for destroying biological material in an airflow including a cartridge with germicidal agent and an electric field generator(32) to separate airborne particles from contaminated air. It would have been obvious to someone of ordinary skill in the art at the time of the invention to provide an electric field generator in addition to

the active agent of Aston to provide for collection of positively charged airborne particles and prevention of re-entry into the atmosphere of the room being cleaned(column 2 lines 65-68 of Seifert, deceased et al).

***Allowable Subject Matter***

Claims 1-10 are allowed.

The following is a statement of the reasons for indication of allowable subject matter:

Claim 1 recites "a hand held vacuum cleaner comprising ... a first passive stage to filter out airborne particles above a predetermined size, an active stage including at least one agent effective to kill ambient biological contaminants; and a second passive stage for removing odors and hazardous chemical agents, wherein the first passive stage is sandwiched between the active stage and the second passive stage to form an integral filter. Vanderbelt et al discloses a single HEPA filter within a hand held vacuum cleaner, and Bilde discloses an active stage filter material between layers of passive stage filter material. It would not have been obvious to someone of ordinary skill in the art at the time to substitute a portable vacuum cleaner having a first passive stage to filter out airborne particles above a predetermined size, an active stage including at least one agent effective to kill ambient biological contaminants; and a second passive stage for removing odors and hazardous chemical agents, wherein the first passive stage is sandwiched between the active stage and the second passive stage to form an integral filter for

the filter of Vanderbelt et al and Bilde because neither Vanderbelt et al nor Bilde suggest such a modification. Claims 2-10 depend on claim 1 and hence are also allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert A Hopkins whose telephone number is 703-308-3913. The examiner can normally be reached on Monday-Friday 9:00am-3:00pm, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Blaine Copenheaver can be reached on 703-308-1261. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9572 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

Robert A Hopkins  
Primary Examiner  
Art Unit 1724

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October 17, 2003